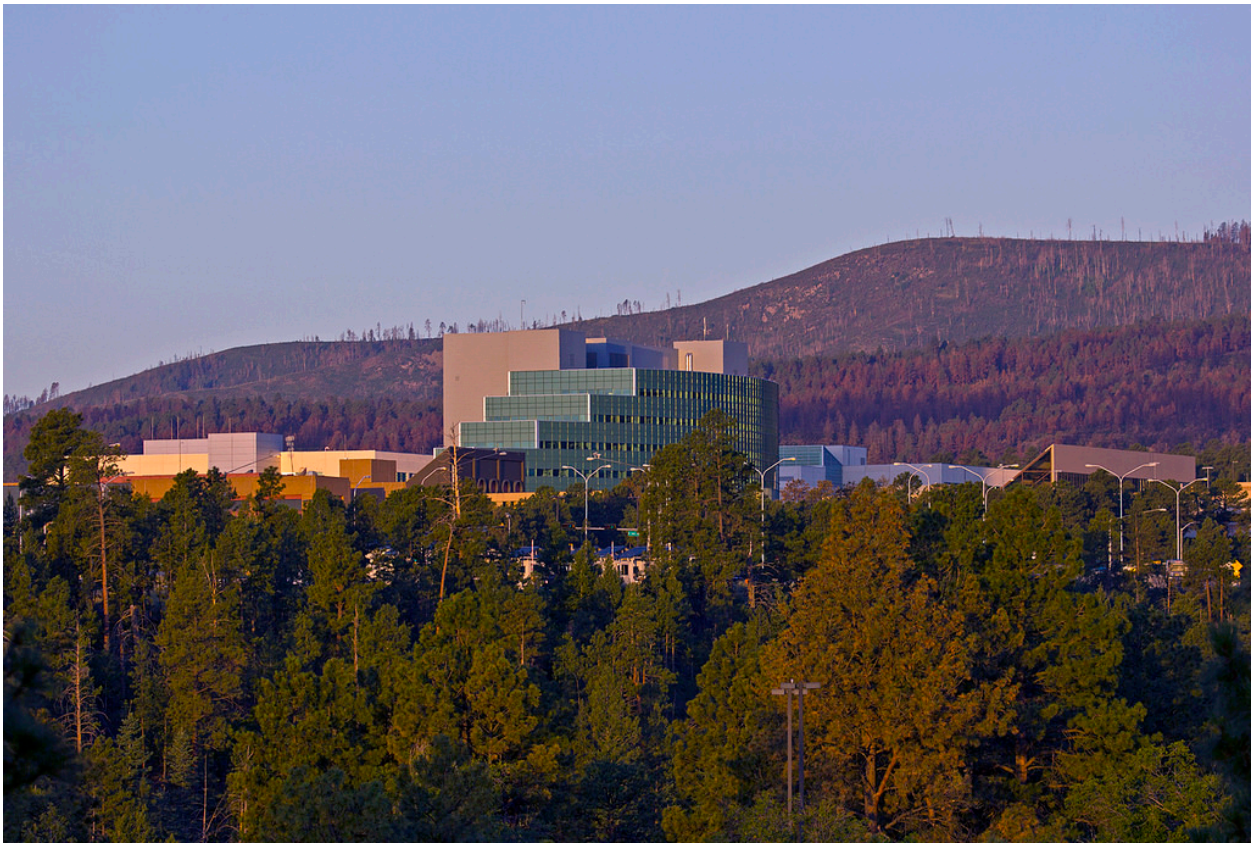
HIV vaccine research focus of Laboratory-sponsored talk

November 13, 2008



LOS ALAMOS, New Mexico, November 13, 2008—HIV is one of the most devastating and challenging emergent diseases of the 20th century. Why has the development of an HIV vaccine been so difficult? This is the subject of the second talk in a new public lecture series sponsored by the Center for Nonlinear Studies at Los Alamos National Laboratory.

The talk, given by the Laboratory's Ruy Ribeiro, is from 7 to 8:30 p.m. Tuesday, November 18 at the Santa Fe Complex, 624 Agua Fria Street, in the new Santa Fe Railyard.

A scientist in the Laboratory's Theoretical Biology and Biophysics Group, Ribeiro uses computational models to understand why HIV vaccines are difficult to develop and to discover novel approaches to improve our chances of developing an effective vaccine. Ribeiro's talk explores the mechanisms of HIV infection, puts them in the context of

vaccine development, and summarizes current efforts to date to create an effective HIV vaccine.

All the talks in this series are free and open to the public.

The next lecture in this series, given by Professor Pablo Iglesias of Johns Hopkins University's Department of Electrical and Computer Engineering, focuses on how simple one-cell bacteria, such as Escherichia coli, sense their environments and respond to them, often much better than human-engineered systems can. That lecture will be held on January 20, 2009.

The lectures are intended to feature broadly accessible introductions to various aspects of quantitative biology, in-depth discussions of specific problems, and lively question and answer sessions. More information about the content and location of future public lectures is available online.

CNLS has been at the forefront of exciting research for more than 25 years and has served as an incubator of new scientific ideas for the Laboratory and for the nation. The center has led the Laboratory's expansion into the scientific field of quantitative biology, or "q-bio," as it is becoming known. "The traditional mission of CNLS is the use of sophisticated mathematical, physical, and computational methods to address problems emerging in a variety of complex systems, from turbulent flows and novel new materials to complex networks involving energy and information transmission and even social networks," said Robert Ecke, CNLS director. "We see the opportunity that our accumulated expertise can provide in the new q-bio field, and are acting on it."

CNLS now supports a vibrant q-bio research program, anchored by more than two dozen researchers in fields spanning genetic engineering, vaccine design, protein science, immunology, cancer research, and bioenergy, and it has been a principal sponsor of the annual q-bio Conference, a premier international scientific event that attracts over 200 researchers from every corner of the world to Santa Fe every August.

The q-bio Public Lecture series is designed to introduce the Santa Fe community to the breakthroughs in biology that have resulted from the use of new, quantitative techniques, many developed right here in northern New Mexico. Internationally recognized researchers from LANL, New Mexico, and across the country, will be delivering the hour-long lectures, generally held on the third Tuesday of every month at 7 p.m. at various locations around Santa Fe.